

Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) A method for ~~the spectral evaluation of an a rotating object to be tested in~~
~~operating states characterized by operating parameters,~~ the method comprising:

providing a first operating parameter that is an actual rotational speed value;
automatically recording a frequency spectrum of the object to be tested by measuring
means, wherein the frequency spectrum has first amplitude values which depend on first
frequency values;

automatically using the first frequency values of the frequency spectrum for
normalization in relation to the actual rotational speed value;

automatically forming an alarm curve with second amplitude values which depend on
second frequency values;

automatically using the second frequency values of the alarm curve for normalization in
relation to the actual rotational speed value;

automatically changing the second amplitude values of the alarm curve according to ~~the a~~
second operating parameters parameter;

automatically comparing the first amplitude values of the normalized frequency spectrum
with the second amplitude values of the ~~normalized~~ alarm curve which is changed according to
the second operating parameters parameter; and

using a result of the comparison to evaluate the object to be tested.

2. (currently amended) A method according to Claim 1, wherein the operating states of the object
to be tested are characterized by ~~a~~ the second operating parameter which is proportional to a load
of the object to be tested.

3. (previously presented) A method according to Claim 1 wherein the operating states of the
object to be tested are characterized by a third operating parameter which is proportional to a
temperature of the object to be tested.

4. (previously presented) A method according to claims 1, wherein the second amplitude values of the alarm curve are changed according to a function of the operating parameters.
5. (previously presented) A method according to claims 1, wherein the alarm curve which is normalized and changed according to the operating parameters forms an envelope curve over the normalized frequency spectrum of the object to be tested in a fault-free normal condition, wherein an alarm is generated if at least one amplitude value of the normalized frequency spectrum lies outside the envelope curve.
6. (previously presented) A method according to claims 1, wherein the measuring means are fashioned as vibro-acoustic measuring means.
7. (previously presented) A method according to Claim 1 for the use of a spectral evaluation of a machine.
8. (previously presented) A method according to Claim 1 for the use of monitoring the vibration of vehicle components.
9. (previously presented) A method according to Claim 2, wherein the operating states of the object to be tested are characterized by a third operating parameter which is proportional to a temperature of the object to be tested.
10. (previously presented) A method according to Claim 4, wherein the function of the operating parameters is specified by a user.
11. (previously presented) A method according to claim 2, wherein the second amplitude values of the alarm curve are changed according to a function of the operating parameters.
12. (previously presented) A method according to claim 3, wherein the second amplitude values of the alarm curve are changed according to a function of the operating parameters.

13. (previously presented) A method according to claim 2, wherein the alarm curve which is normalized and changed according to the operating parameters forms an envelope curve over the normalized frequency spectrum of the object to be tested in a fault-free normal condition, wherein an alarm is generated if at least one amplitude value of the normalized frequency spectrum lies outside the envelope curve.

14. (previously presented) A method according to claim 3, wherein the alarm curve which is normalized and changed according to the operating parameters forms an envelope curve over the normalized frequency spectrum of the object to be tested in a fault-free normal condition, wherein an alarm is generated if at least one amplitude value of the normalized frequency spectrum lies outside the envelope curve.

15. (previously presented) A method according to claim 4, wherein the alarm curve which is normalized and changed according to the operating parameters forms an envelope curve over the normalized frequency spectrum of the object to be tested in a fault-free normal condition, wherein an alarm is generated if at least one amplitude value of the normalized frequency spectrum lies outside the envelope curve.

16. (previously presented) A method according to claim 2, wherein the measuring means are fashioned as vibro-acoustic measuring means.

17. (previously presented) A method according to claim 3, wherein the measuring means are fashioned as vibro-acoustic measuring means.

18. (new) A method for evaluating a rotating machine, the method comprising:

establishing an alarm curve of vibration amplitude data verses frequency for a first rotating speed of a rotating machine operating at a first load value;

gathering actual vibration amplitude data verses frequency from the rotating machine at a second rotating speed different than the first rotating speed and at a second load value different than the first load value;

normalizing the actual vibration amplitude data verses frequency to the first rotating speed;

adjusting the alarm curve to account for the difference between the first and second load values; and

comparing the normalized data and the adjusted alarm curve to evaluate the rotating machine.

19. (new) The method of claim 18, further comprising:

establishing the alarm curve for a first temperature;

gathering the actual vibration amplitude data verses frequency at a second temperature different from the first temperature;

further adjusting the alarm curve to account for the difference between the first and second temperatures; and

comparing the normalized data and the further adjusted alarm curve to evaluate the rotating machine.